Amendments to the Specification

Please amend the specification as follows:

Please replace the paragraph beginning at page 14, line 3, with the following amended paragraph:

As shown in FIG. 3, in the conventional MRAM using a TMR element formed of a thin film of metallic ferromagnetic material, a MOS transistor 6 is combined with the TMR element to form a memory cell, because in the absence of the MOS transistor 6, a current applied to a bit line [[3]] 4 and a word line 5 will be supplied to not only a selected memory cell but also the remaining cells. In the MRAM of the present invention, the rectification effect of the p-i-n type or p-n junction type low-resistance tunneling-magnetoresistance-effect (low-resistance TMR) diode can control the current to flow in one direction from the bit line to the ward line. This eliminates the need for providing a MOS transistor to carry out a switching function for selecting an intended memory element as in the conventional MRAM.

Please replace the paragraph beginning at page 18, line 20 with the following amended paragraph:

In order to reduce the resistance of a TMR element, a p-i-n type low-resistance tunneling-magnetoresistance-effect (low-resistance TMR) diode was prepared using p-type (Zn, Cr) [[N]] O (the concentration of Cr: 10 atomic%) as a p-type half-metallic dilute ferromagnetic semiconductor,

n-type (Zn, V) [[N]] O (the concentration of V: 10 atomic%) as an n-type half-metallic dilute ferromagnetic semiconductor, and three atomic layers of nonmagnetic insulator ZnO (i-layers) interposed therebetween, as shown in FIG. 1.

Please replace the paragraph beginning at page 19, line 6, with the following amended paragraph:

Further, a p-n junction type low-resistance tunneling-magnetoresistance-effect (low-resistance TMR) rectifier diode was prepared by joining p-type (Zn, Cr) [[N]] O (the concentration of Cr: 15 atomic%) as a p-type half-metallic dilute ferromagnetic semiconductor, and n-type (Zn, V) [[N]] O (the concentration of V: 15 atomic%) as an n-type half-metallic dilute ferromagnetic semiconductor, as shown in FIG. 2. This low-resistance TMR diode had the same rectification effect capable of providing a new type of magnetoresistive random-access memory (MRAM) using half-metallic dilute ferromagnetic semiconductors which is adequately operated without any MOS transistor.